

**Work Order ID 67244**

Monday, March 14, 2011 10:20:04 AM

BLUE



Page 1

Item ID: D2724-041

Accept



Setup Start



Revision ID:

Stop



Item Name: 206L Step Assembly

Start Date: 3/14/2011 Start Qty: 2.00



Cust Item ID:

Required Date: 3/25/2011 Req'd Qty: 2.00



Customer:

Reference:

Approvals:

Process Plan: CL

Date: 11/03/14

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

D2724

Rev C

100

0.00



Large Fab

Large Fab

Memo

0.00

Large Fab

Cut D2724-1 using D2622 extrusion as per Dwg D2724  
Deburr and bevel ends for welding

11.04.06

2



110

0.00



Large Fab

Large Fab

Memo

0.00

Large Fab

Weld end cap and lugs as per Dwg D2724 using Jig DT8884 followed by  
Jig  
DT (One End Only)  
A/R AL ROD Batch: M114703  
Grind end cap welds flush M115928

11.04.10

2



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



**Work Order ID 67244**




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Page 2

Item ID: D2724-041 Accept  Setup Start   
Revision ID: Stop   
Item Name: 206L Step Assembly  
Start Date: 3/14/2011 Start Qty: 2.00  Cust Item ID:  
Required Date: 3/25/2011 Req'd Qty: 2.00  Customer:  
Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start   
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop 

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120  QC Quality Control	QC9- Inspect visual per QSI004- Fusion Welds  Memo	0.00  0.00				2	0	04/04/13	
130  QC Quality Control	QC5- Inspect part completeness to step on W/O  Memo	0.00  0.00				ml	11	04 13	(2)
140  HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1  Memo	0.00  0.00				ml	u104/18	x2	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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# Work Order ID 67244

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Item ID: D2724-041

Accept



Setup Start



Revision ID:

Stop



Item Name: 206L Step Assembly

Start Date: 3/14/2011 Start Qty: 2.00



Cust Item ID:

Required Date: 3/25/2011 Req'd Qty: 2.00



Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

150

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

2 BL 11-4-18.

160

Large Fab

0.00



Large Fab

Memo

0.00

Large Fab

Inspect for foreign object per QSI 024  
Weld Remaining end cap as per Dwg D2724 using Jig DT8884 followed by Jig  
DT  
A/R AL ROD Batch: m114703  
Grind per dwg D2724

Ph 11-04-19

2

170

QC10- Inspect visual per QSI004- ground welds

0.00



QC

Memo

0.00

Quality Control

8/11/04/25

72  
44

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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**NOTE:** Date & initial all entries

Monday, March 14, 2011 10:20:04 AM

[illegible]

**Abstract**

1. The first step in the process is to identify the problem or issue that needs to be addressed. This involves gathering information and understanding the context of the problem.

**Customer:**

\_\_\_\_\_



SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

**Insp.  
Stamp**

\_\_\_\_\_

0.00  $\delta$  11/04/20

42  
43

[illegible]

0.00

BL 11-4-25.

**Abstract**—The purpose of this study was to determine if there were differences in the prevalence of musculoskeletal disorders among different types of workers. The study included 600 male employees from three companies who had been employed by their respective companies for at least one year. Data were collected through self-administered questionnaires. Results showed that the prevalence of musculoskeletal disorders was higher among non-manual workers than among manual workers. This finding suggests that non-manual workers may be more susceptible to musculoskeletal disorders than manual workers.

0.00

Spray Painting:  
prime grey B: 117319  
spray paint delfleet blue B: 115985  
clear delfleet B: 117113

m 11 24 27 (2)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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Stop



Item Name: 206L Step Assembly

Start Date: 3/14/2011 Start Qty: 2.00



Cust Item ID:

Required Date: 3/25/2011 Req'd Qty: 2.00



Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
210  QC Quality Control	<del>QC3</del> Inspect Part Finish QC 14 Memo	0.00  0.00				1			11.04.28
220  HandFinish Hand Finishing	Wing Walk as per dwg QSI005 4.4 Batch Memo	0.00  0.00				2			11/04/28
230  QC Quality Control	QC3- Inspect Part Finish Memo	0.00  0.00							11/04/3 ②

W/O:		WORK ORDER CHANGES					
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Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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**Work Order ID 67244**

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Monday, March 14, 2011 10:20:04 AM

Item ID: D2724-041

Accept



Setup Start



Revision ID:

Stop



Item Name: 206L Step Assembly

Start Date: 3/14/2011 Start Qty: 2.00



Cust Item ID:

Required Date: 3/25/2011 Req'd Qty: 2.00



Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

240

Identify as per dwg &amp; Stock Location: \_\_\_\_\_

0.00

PP

67242

11/5/30/11



Packaging

Memo

0.00

Packaging

250

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

11/5/30/11

mc  
11-05-26

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

Monday, March 14, 2011 10:20:01 AM

Page 1

Work Order ID: 67244

Parent Item: D2724-041

Parent Item Name: 206L Step Assembly



Start Date: 3/14/2011

Required Date: 3/25/2011

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP Rev:E As Per Ecn 766 06-01-06 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D2622-120C

Manufactured

No

100

Each

69.5110

1

2



Step Extrusion



11.04.06

Location

Loc Qty

Loc Code

WA

69.511

55214

1.92

58544

1

61208

4.724

64409

61.867

2

D2734

Manufactured

No

110

Each

76.0000

1

2



Step End Plate



11.04.11

Location

Loc Qty

Loc Code

WA015

76

62931

1

66143

75

2

D3458-1

Manufactured

No

110

Each

45.0000

2

4



Step Mounting Plate



11.04.09

Location

Loc Qty

Loc Code

WA018

45

51239

3

63075

42

4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

Monday, March 14, 2011 10:20:01 AM

Page 2

Work Order ID: 67244

Parent Item: D2724-041

Parent Item Name: 206L Step Assembly

Start Date: 3/14/2011

Required Date: 3/25/2011

Start Qty: 2.00

Required Qty: 2.00

D3458-3

Manufactured No

110

Each

48.0000

2

4



Step Mounting Plate



11.04.09

Location

Loc Qty

Loc Code

WA018

48

63076

48

D2734

Manufactured No

160

Each

76.0000

1

2



Step End Plate



11.04.19

Location

Loc Qty

Loc Code

WA015

76

62931

1

66143

75

2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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**NOTE:** Date & initial all entries



RELEASED  
05.11.14

APPLY BLACK  
ANTI-SKID ON  
TOP SURFACE  
TO BOTTOM  
OF TOP RADIUS

- REFER TO STEP  
END DETAIL

D2724-1  
MAKE FROM EXTRUSION D2622-107

ROUND CORNER OF EXTRUSION TO  
MATCH BEND RADIUS OF END PLATE

D2734 END PLATE

TYPICAL STEP END DETAIL  
NOT TO SCALE

MEASURED BEFORE END CAPS WELDED IN PLACE

DISTANCE TO  
PLATE CENTER  
LINES AT TOP  
OF STEP

80°  
(TYP)

FWD

D2724-041 LH STEP ASSEMBLY (SHOWN)  
D2724-042 RH STEP ASSEMBLY (OPPOSITE)

D2721-041/-042 STEP ASSEMBLY PARTS LIST

QTY - 041	QTY - 042	PART NUMBER	DESCRIPTION
X		D2724-041	LH STEP ASSEMBLY
	X	D2724-042	RH STEP ASSEMBLY
1	1	D2622-107	EXTRUSION
2	2	D2734	END PLATE
2	2	D3458-1	PLATE
2	2	D3458-3	PLATE

D2724-041/-042 STEP ASSEMBLY

- |    |  |           |
|----|--|-----------|
| 1) | MAKE FROM EXTRUSION D2622  | TYPICAL S |
| 2) | WELD PER DART QSI 004  | NOT       |
| 3) | FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1<br>POWDER COAT ASSEMBLY WHITE (4.3.5.1) PER DART QSI 005 4.3<br>APPLY BLACK ANTI-SKID PAINT PER DART QSI 005 4.4 |           |
| 4) | ALL DIMENSIONS ARE IN INCHES   |           |
| 5) | ALL TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED   |           |

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POKI PADLOCK, WA

**DART AEROSPACE USA, INC.**  
PORT HADLOCK, WA

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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